

REMARKS

Claims 1, 2, 4, 6-22, and 24-39 are pending in the present application.

The rejection of Claims 1, 2, and 5 under 35 U.S.C. §102(b) over EP 0 404 960 (EP '960) is obviated by amendment.

EP '960 discloses a thermosetting resin composition comprising (a) an ethylene copolymer containing 0.5 to 10% by weight of a structure derived from monomer having an acid anhydride group and 3 to 40% by weight of a structure derived from an α,β-unsaturated carboxylic acid ester monomer in the molecule, (b) a resin having an epoxy group, and (c) a curing agent for an epoxy resin (see claim 1 of EP '960). The weight ratio of (a)/(b) is in the range of 0.1 to 1.0. According to EP '960 specific ethylene copolymers (a) are used, which are terpolymers, prepared by three different monomers (page 9, lines 6 to 9).

The curing agent (c) in the resin composition of EP '960 is a polyester having a carboxyl terminus comprising as the main components an aromatic dicarboxylic acid, an aliphatic dicarboxylic acid and a polyhydric alcohol (page 10, lines 10 to 14). The resin having an epoxy group (b) used in the present invention includes any resins which are usually used as a component of the conventional epoxy resin coating compositions (page 9, last paragraph).

The thermosetting resin compositions of EP '960 are useful for the preparation of powder-coating compositions which are useful for coating underflow parts of automobiles, building materials, industrial materials etc. which require corrosion protection and further resistance to external impact such as impact which jumped stones, so-called "anti-chipping properties" (page 1, first paragraph).

The pulverulent binder composition as claimed in Claim 1 above differs from the resin compositions as disclosed in EP '960 in the cross-linking agent employed, which is a very specific cross-linking agent (component B), as well as in the amount of cross-linking agent in relation to the pulverulent copolymer employed in the binder compositions (component A). Further, the binder compositions of the present invention do not comprise a resin having epoxy groups. Indeed, the Examiner recognizes that, at least with respect to the specific cross-linking agents, the present invention is not anticipated by or even obvious in view of EP '960 as previously pending Claim 23 was not included in this rejection. Since the limitations of previously pending Claim 23 have been added to Claim 1, Applicants submit that for the same reason that Claim 23 was previously free from EP '960 so to is present Claim 1.

Applicants request withdrawal of this ground of rejection.

The rejections of: (a) Claims 8-13, 16, 17, 19, 28, 30-37, and 39 under 35 U.S.C. §102(b); and (b) Claim 29 under 35 U.S.C. §103(a), each over Muskat (US 3,085,986), is obviated by amendment.

Muskat discloses low pressure molding compositions containing a mixture of a polyhydric alcohol having at least one primary hydroxyl group and a solid, linear low-molecular weight copolymer of maleic anhydride and styrene, which is crosslinked by said alcohol (column 1, lines 11 to 16).

According to independent amended claim 8 of the present application a binder composition is claimed comprising a pulverulent copolymer based on a copolymer of maleic anhydride and at least one α -olefin and styrene (component A'). The binder composition as claimed in amended claim 8 therefore differs from the molding compositions as disclosed in

Muskat in the copolymer employed, which is according to amended claim 8 a terpolymer.

Therefore, the Muskat cannot anticipate the claimed invention.

Moreover, Applicants submit that the present invention would not even be obvious in view of the disclosure of Muskat. Muskat discloses low pressure molding compositions (column 1, lines 11, 12). In contrast, the present application relates to a pulverulent formaldehyde-free binder composition, especially for binding fibrous and/or granular substrates (page 1, lines 4, 5 of the present application). According to the present application it is an object of the present invention to provide pulverulent formaldehyde-free binders for substrates, for example shaped articles. These binders shall be preferentially suitable for fibrous and/or granular substrates, for example rice cotton, natural fibers, etc. (page 2, lines 12 to 15). Muskat does not relate to compositions which are suitable as binder compositions, especially as binder compositions for fibrous and/or granular substrates. The technical field Muskat is therefore different from the technical field of the present invention. Muskat cannot even support a *prima facie* case of obviousness.

In view of the foregoing, Applicants request withdrawal of these grounds of rejection.

The rejection of Claims 1, 2, and 4-39 under 35 U.S.C. §103(a) over Dreher et al (US 6,716,922B1) is respectfully traversed.

Dreher et al disclose heat-curable polymer dispersion powders and their use as binders for moldings (column 1, lines 5, 6). According to claim 1 of Dreher et al the polymeric binder comprises 87.5 to 12.5% by weight (based on the total weight of the polymeric binder) of at least one water-insoluble polymer A1, from 12.5 to 87.5% by weight (based on the total weight of the polymeric binder) of at least one water-soluble polymer A2, and from 0.1 to 30% by weight (based on the total weight of the polymeric binder) of at least one amine

containing a hydroxyl group, wherein the water-soluble polymer A2 comprises from 50 to 100% by weight (based on the weight of the polymer A2) of polymerized units of at least one ethylenically unsaturated monocarboxylic acid, dicarboxylic acid, or a mixture of monocarboxylic and dicarboxylic acids, from 0 to 50% by weight (based on the weight of the polymer A2) of at least one ethylenically unsaturated compound E selected from the group consisting of an ester of an ethylenically unsaturated monocarboxylic acid, a monoester of an ethylenically unsaturated dicarboxylic acid and a diester of an ethylenically unsaturated dicarboxylic acid, and up to 20% by weight (based on the weight of the polymer A2) of one or more further monomers, and wherein said amine is present in at least one compound E, as a separate compound, or both as a separate compound and in at least one compound E.

Dreher et al discloses very specific polymeric binders comprising two different polymers, a water insoluble polymer A1 and water-soluble polymer A2. Further, the polymeric binder comprises at least one amine containing a hydroxyl group. However, according to the present invention a binder composition is used comprising only one copolymer (component A in claim 1; component A' in claim 8) and - according to claim 1 - a specific crosslinker. Further materials are only additive materials but no further polymers. Additionally, Dreher et al do not disclose copolymers which are obtained by polymerizing maleic anhydride and at least one α -olefin (see claim 1) or maleic anhydride, at least one α -olefin and a styrene (see claim 8).

The binder compositions according to Dreher et al are therefore completely different from the binder compositions as claimed in the present invention. There is no indication in Dreher et al, that binder compositions as claimed in the present invention are useful for the preparation of products having high mechanical strength and dimensional stability, even under humid conditions. Further, binder compositions according to the present invention

exhibit excellent tack under anhydrous application conditions (page 9, lines 5 to 9). These advantages of the pulverulent binder compositions of the present invention can be seen in examples 1 to 3 of the present invention (page 11, line 5 to page 12, line 7). There is no indication in Dreher et al that the binder compositions of Dreher et al. exhibit excellent tack under anhydrous application conditions. Therefore, Dreher et al fails to meet the threshold for establishing a *prima facie* case of obviousness and, even if the Examiner were to contend that this threshold was met, the Experimental data set forth in the specification would be sufficient to rebut the same.

Accordingly, Applicants request withdrawal of this rejection.

Applicants submit that the present application is now in condition for allowance.
Early notice to this effect is earnestly solicited.

Respectfully submitted,

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